

Beam Profiles from T-1048



Fermilab This Week



12/3/15



Test Beam Details: From FTFB Page

Energy	Mode ¹	Protons	Pions ²	Highest Intensity ³	Muons	Kaons	electrons	Spot Size ⁴	Δp
120 GeV	Protons	100%	0	5E5	0	0	0	6mm	2%
60 GeV	pions +								
50 GeV	pions +								
40 GeV	pions +								
32 GeV	pions +/-			500,000					
30 GeV	pions +/-			500,000					
25 GeV	pions +/-			600,000					
20 GeV	pions +/-			500,000					
16 GeV	LE π +/-		87%	1,000,000	100%			10mm	<4.5%
15 GeV	LE π +/-								
12 GeV	LE π -			500000					
10 GeV	LE π +/-								
8 GeV	LE π +/-		55%	750,000	98%			12mm	2.3%
6 GeV	LE π +								
4 GeV	LE π +/-		31%	400,000	74%			13mm	2.7%
3 GeV	LE π +/-								2.7%
2 GeV	LE π +/-		<30%	450,000				13mm	2.4%
1 GeV	LE π +/-		<30%	69,000					2.7%

RMS of beam spot

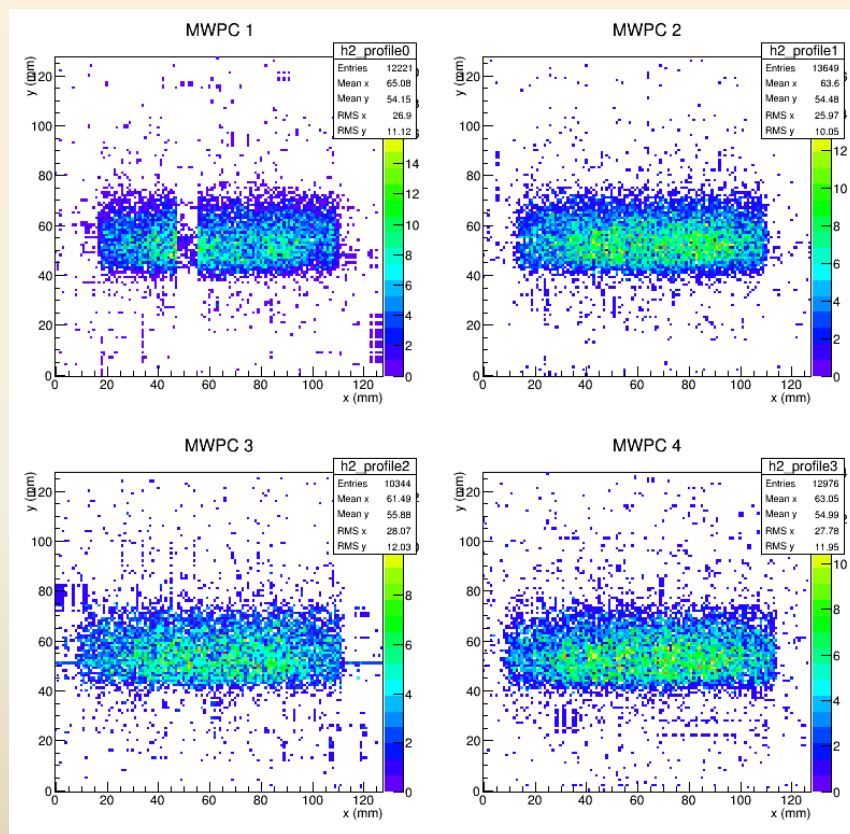
6mm

10mm

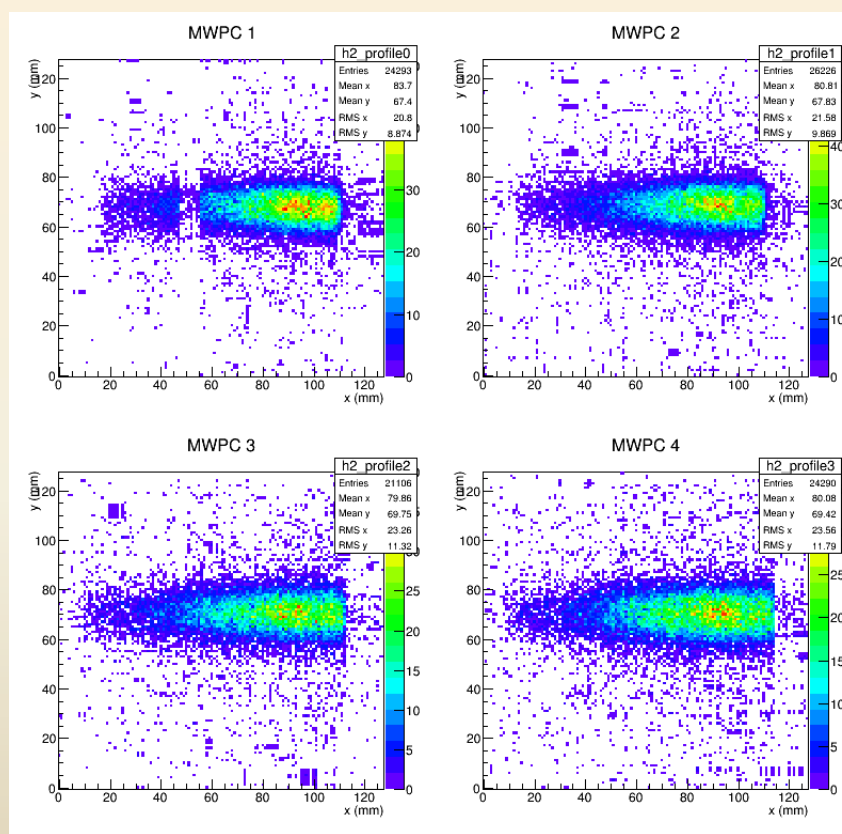
13mm

From First Test Beam Run: Log Book

60 GeV: 24-Feb-2014



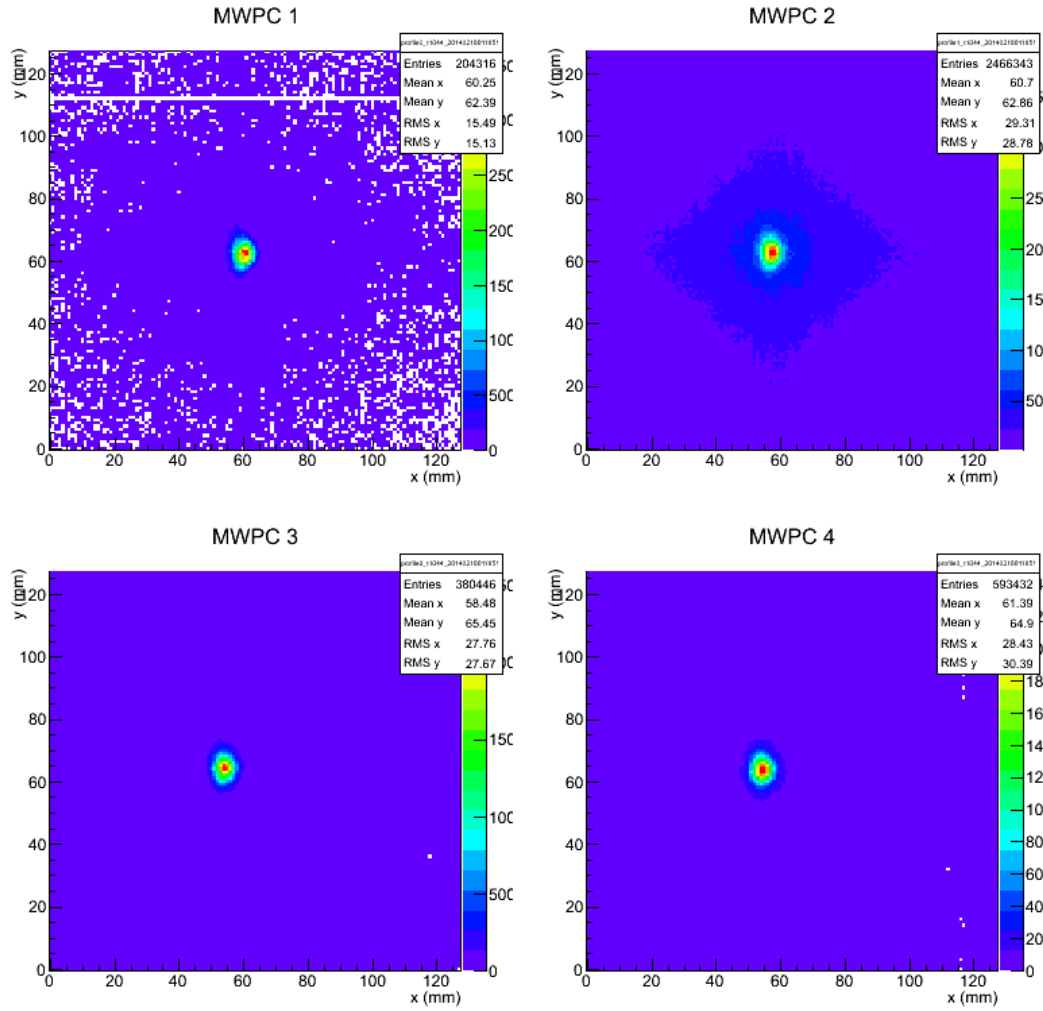
40 GeV: 24-Feb-2014



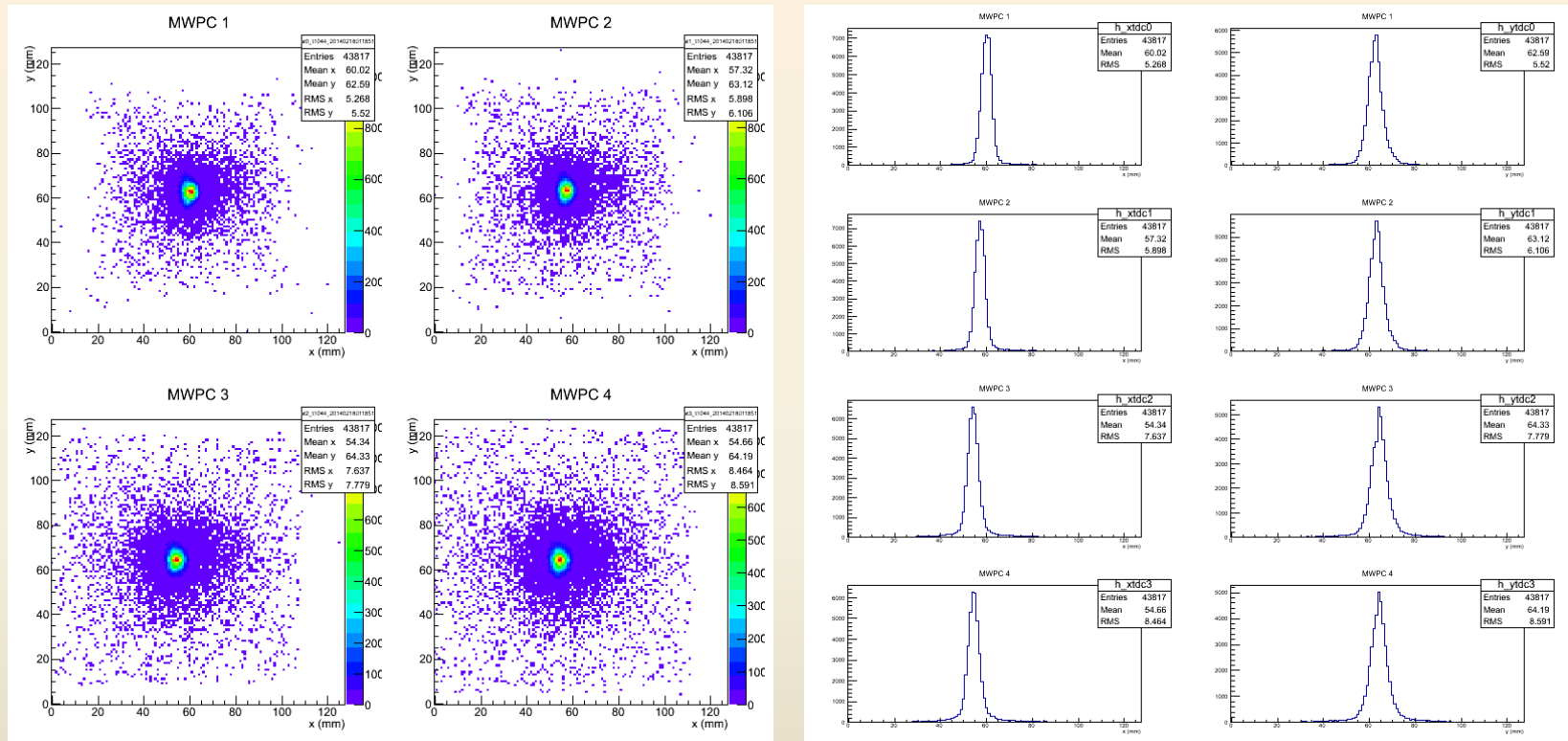
Look at Data in More Detail

- T-1044/1048 had 4 MWPCs in the beam line
 - 1mm wire spacing
 - Covers 128 mm in X and Y
- Some MWPC data files on disk at BNL
- Data recorded by Mickey/ TOF group
- Still looking for:
 - Actual chamber locations
 - Beam conditions for each file
 - What may have been in the beam line: trigger counters, TOF prototype, ???
- Very early stage analysis
 - Based on macro from Mickey
 - Select “Single Track” events by requiring only 1 X-Y hit per chamber
- Just look at profile for the moment

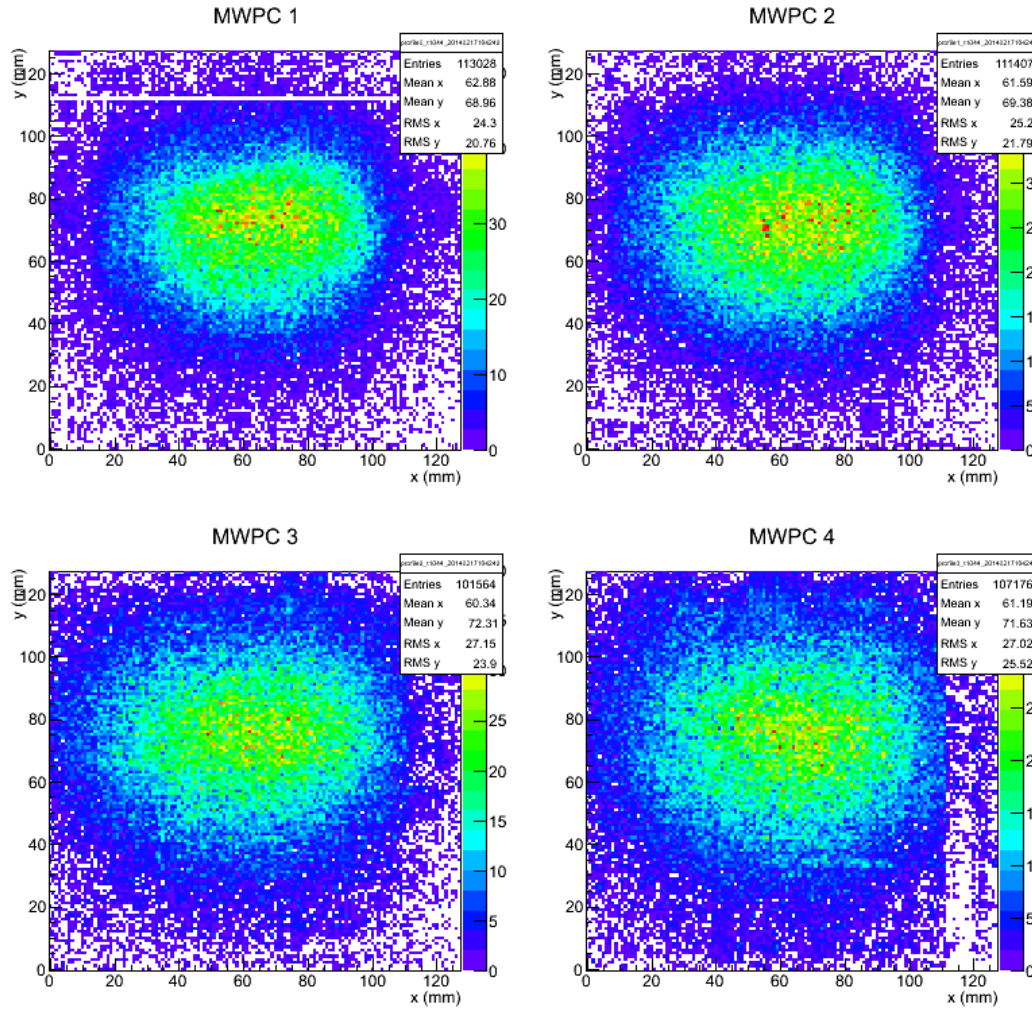
20140218011851: All Events



20140218011851: “Single Track” Events



20140217104242: All Events



20140217104242: “Single Track” Events

